

Temporal variation of the Venus O₂ night airglow

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We conducted near-infrared imaging spectroscopy of the nightside of Venus at NASA's Infrared Telescope Facility in July and September 2007. The cryogenic echelle spectrograph (CSHELL) is used for acquiring high-resolution spatially resolved spectra of O₂ airglow. The 0.5-arcsec slit provides a spectral resolution of about 40,000.

The purpose of these observations is to monitor the temporal variation of the airglow intensity distributions. We observed Venus for 8 hours in a day. In this presentation, we will show temporal variations of the airglow. And we will examine emitting process of the airglow using the temporal variation.